

Nazarbayev Intellectual School of Chemistry and Biology in Karaganda



Development of research and design skills
based on the generation of new ideas
through the integrated use of conceptual
learning



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Action research

How does the combined use of the Synectics method and B. Lucas model for the concept of "change" affect the development of research-design skills of 9th grade students on the basis of defining and creating an idea in accordance with the communicative situation?

Research purpose: improving the analysis of literary and non-literary texts through conceptual training, developing research and design skills based on clarifying ideas and generating new ideas.

Research objectives: creating conditions for the formation of design and processing skills; to make decisions and take action on their own based on supporting their ideas, create conditions for their socialization by following their conclusions and establishing mutual relations.

Methodology: theoretical, social-psychological, experimental-empirical, methodological, control methods were used.



Expected result

- Research and design skills increase by generating ideas and developing them through in-depth analysis with the concept of detail/symbol in texts;
- when generating ideas, organizes thoughts into a compact structure, suggests conclusions, and follows them;
- presents a model of artistic images, evaluates, produces a product at the end of the section; "9.A/I1, 9.A/I4" offers ways to effectively learn learning objectives.

Complex organization of independent learning and creation of ideas

In the 21st century, it is not enough to use only the skills that the left hemisphere of the brain responds to. Students also need to innovate, communicate confidently, communicate, and synthesize seemingly unrelated information in new ways.

Дэниел Пинк

Importance: Making the concept the main support, considering the problem in terms of time and space, clarifying the idea from the perspective of the author's position in literary and non-literary texts, generating new ideas, developing them helps to form a unified worldview of a person.

Analysis of communicative situations within the framework of the concept of "Change" helps students to recognize the conceptual system behind the author's idea and develop it in their own way.

→ Yesterday.
Today.
Future



He uses the knowledge he has acquired in other subjects when looking at the problem in the space of time.

- Evaluates the changing values in time space. If the understanding is expressed as an association, it becomes the basis for generating a new idea. A concept is formed in the mind through a certain conceptual system



A concept is formed in the mind through a certain conceptual system. The conceptual system consists of a hierarchical (stepped) structure: properties, signs of the world (sensory perceptual perception); cognitive model (association, image, symbol, etiquette, standard, stereotype form); types of concepts (frame, script, script, scheme, drawing in the form of an image); linguistic image of the world (metaphor, phraseology, word, sentence, poetic meaning)"[2].

The methods used in the course:

Differentiation of research works related to conceptual learning and assessment model of creative thinking in the theoretical stage: Abdrakhmanova A.E. Conceptual system in artistic text; Akhmetova S.R., Mukajanova N.S., Use of conceptual training in "social sciences" lessons; Synectics is a form of searching for new ideas through analogies. Direct analogy" article; Zhanpeyisova M. M. "Modular learning technology as a tool for student development"; Koylyk N. O., Kaupenbaeva S.M. "Effectiveness of using problem-based learning in the learning process".

Questionnaire: input and output questionnaires were taken from 24 students, the results were classified. Interviews were conducted with students and colleagues. In the experimental period: included 3 stages: 1) "Definition of the problem" / work with "conceptual tables" (individually/in pairs/groups). 2) "Problem solving"/pair work (discussion). 3) "Problem solution application"/Presentation of a model (product of individual/pair/group discussion). Analysis and assessment was carried out for each stage of the research. Discussion and reflection at each stage of research.

Conceptual education with other methods integrated use

Based on the concept of "Change" establish new connections within time and space and generate ideas.

Viewing the section as a whole module and connecting it with the design method

"Synectics" method: personal, symbolic, fantastic alternative; B. Lukas model: generating an idea, its development "Metaphorical modeling"

The integrated use of methods is the basis for the development of design skills, supporting students' ideas by synthesizing the concept of "Change" with modular, problem-based learning, information and communication technologies, and the design method.

Supporting the student's idea

From the input

"What skills do you think practicing generating new ideas will improve?"
"Helps to turn the problem into an opportunity" - 9 students;
"Helps to achieve the goal in any communicative situation" - 4 students;
10 students answered: "It helps to offer a unique solution to the situation."

From the Eastern Survey:

1. How effective was it for you to discuss the problem in the space of time and come up with an idea?
 - "It was easy because I understood the author's idea" - 25%;
 - "I had the opportunity to create an idea independently of the author" - 40%";
 - "I was able to form an understanding by connecting artistic knowledge with historical data" - 35%.
2. What skills do you think you need to improve in generating ideas? "when coming up with an idea, organize the thoughts into a compact memory and present a conclusion like a proverb" - 70%;
"commenting with proverbs" - 12%;
"proposing a solution through an idea" - 18% .

Task 1

Identify 1 significant detail / symbolic use from the passage that reveals the character's character. Connect the determined detail with the concept of change (time: yesterday, today, future) and compose 3 problem questions

Defined detail	A change (time space)	Compiled questions
	Yesterday	
	Today	
	future	

Complex organization of idea generation

Task 2 "Metaphorical modeling" method Make a metaphorical simulation of the detail identified in the passage below. Comment on the significance of the identified detail/symbol in the idea. Write down 2-3 different ideas. Make a new statement in 1 sentence by comparing ideas. Use different metaphors related to the model. Define an important detail (character) with two opposite words to create a metaphor. Differentiate from the point of view of the concept of change (yesterday, today, tomorrow), perhaps 1 new idea related to the metaphorical model, develop the idea, develop a value model of the character, propose a project.

Description:

Determines the significance of the 2 identified details/symbols.

2-3 different ideas arise. based on the comparison of ideas, makes a new conclusion in 1 sentence.

observes/makes mistakes using a variety of metaphors to model.

It defines an important detail (character) with two words whose meanings are opposite to each other.

(Example: Paradise in Tamuk. Disclosure of the secret)

Give in the form of a combination of an adjective and a noun) creates, develops and writes 1 new idea related to the metaphorical model.

"Metaphorical modeling" method

Justification	2-3 different ideas arise	In 1 sentence based on the comparison of ideas perhaps a conclusion	Provide a metaphorical model
Write or draw 1 new idea developed from metaphorical modeling.			

"Synectics" method

"Personal alternative" - put yourself in the role of an invented object and creatively propose a solution to a problem in the head of one of the characters. The problem is based on the concept of "Change" "YESTERDAY. TODAY. TOMORROW" from the point of view of time and space.

In the role of one character.	Offer a unique solution to the problem at hand.	Based on the solution "Change" concept "YESTERDAY. TODAY. TOMORROW" from the point of view of time and space.	Come up with an idea for each change and present it in different genres (monologue, diary, performance, etc.).
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From student responses in metaphor modeling:

Conclusion from the metaphorical simulation of the passage in the novel "Khar" about Kenesary's test in front of Yusup, demanding that his son Syzdik fall into the womb.

"Forged iron when it's hot", "Teaching is from a willow cradle"

In the fragment of the work about Kenesari seeing himself without a head in his dream

"The strength of the people is in its unity." "The absence of a leader is the stagnation of the battle", "The lack of loyalty of the offspring is the tragedy of the people"

An idea about space-time is emerging

"The fact that the clear spring does not turn into a river is the result of Russian colonialism", "Our country becoming a river is the property of the future"

"Kazakh is a free-flying eagle" in metaphorical modeling; "A competent, qualified and educated person should sit in the power of the country", Kenesary is called "Wounded Tiger", "Helpless Caregiver", "Strong Leader", "Golden Fish in Muddy Water".

Оқушылар идеясына қолдау көрсету нәтижесі

Based on Mukhtar Shakhanov's poem "Tanakoz" **"I will be surrounded by great friendship, I will be surrounded by your name!"** performance named The screenwriter-director is Temireeva Aknur

"How many swans have gone - longing song?" performance named (Dedicated to the souls of those who died from the corona virus) Mukaghali Makatayev The play is based on the poem "When the Swans Sleep".
Screenwriter-director - Smagul Zhaniya



Conclusion

- the student's level of defining and generating ideas has improved; conditions were created for the formation of the skills to plan and process information based on a specific topic;
- The integrated use of conceptual education with other methods leads students to discover the possibilities of generating ideas, to search for ways of conveying ideas;
- "9. A/I1. Analysis of the importance of a detail in a work of art", "9.A/I4. The methods of mastering the educational goals of "Creative writing by reprocessing excerpts from the work" were developed, and "Conceptual tables" were developed and offered to colleagues for use.

Used literature

1. Абдрахманова А.Е. Көркем мәтіндегі концептілік жүйе. С.Сейфуллин атындағы Қазақ агротехникалық университетінің Ғылым жаршысы(пәнаралық) = Вестник науки Казахского агротехнического университета им. С. Сейфуллина (междисциплинарный). – 2015. - №1 (84). – Б.39-44.
2. Әмірбекова А.Б. Концептілік құрылымдардың поэтикалық мәтіндегі вербалдану ерекшеліктері. Фил. ғыл. канд. дисс. – Алматы, 2006. – 125 б.
3. ДББҰ Назарбаев Зияткерлік мектебі «Программа развитие одаренности детей» Астана 2013ж. 531 б.
4. https://massaget.kz/mangilik_el/tup_tamyir/asyil_soz/64288/ Концептінің құрылымы.
5. «Назарбаев Зияткерлік мектептері» ДББҰ Білім беру бағдарламасы – NIS-Programme «Қазақ әдебиеті» (Т1) пәні бойынша оқу бағдарламасы , Негізгі мектеп (6-10-сыныптар) Нұр-Сұлтан 2019ж.
6. Жанпейісова М. М. «Модульдік оқыту технологиясы оқушыны дамыту құралы ретінде». - Алматы, 2002.
7. Қойлық Н. О., Каупенбаева С.М. «Оқу үрдісінде проблемалық оқытуды қолданудың тиімділігі» әдістемелік нұсқаулық. –Алматы, «Өрлеу» БАҰО, Алматы 2019 -38 б.
8. <https://kerchtt.ru/kk/sinektika-forma-poiska-novyh-idei-s-pomoshchyu-analogii-analogiya-pryamaya/> «Синэктика – аналогиялар арқылы жаңа идеяларды іздеудің бір түрі. Тікелей аналогия».



*Thank you for your
attention !*